## REMARKS

By this Amendment, Applicant adds claims 15 and 16. Thus, claims 1-16 are pending in this application. Support for new claims 15 and 16 may be found at least in paragraph [0004]. Applicant respectfully requests reconsideration of the pending claims at least in light of the following remarks.

The Office Action rejects claims 1-10 under 35 U.S.C. §101 as directed to non-statutory subject matter because no hardware is defined. Applicant respectfully traverses the rejection.

There is no requirement that a method claim recite structure under §101. In particular, the PTO's interim guidelines for examination under §101 printed in the November 22, 2005 Official Gazette Notices clearly state that "the tangible requirement does not necessarily mean that a claim must ... be tied to a particular machine." Rather, the guidelines affirm that the tangible requirement only requires that "the claim must produce a real-world result." Finally, the guidelines define a real-world result as "a practical method or means of producing a beneficial result or effect." Thus, according to the PTO's interim guidelines for examination under §101 a method claim need only produce a beneficial result or effect to satisfy the "tangible" requirement of §101.

Claims 1-10 provide a beneficial result or effect in that they solve nogood databases (see, e.g., claim 1 preamble and paragraphs [0004] - [0014]). Thus, claims 1-10 are patentable under §101

The Office Action rejects claims 1-14 under 35 U.S.C. §101 as directed to non-statutory subject matter as allegedly only consisting of abstract mathematical operations. Applicant respectfully traverses the rejection.

The PTO's interim guidelines for examination under §101 make clear that a method claim may include and mathematically manipulate various claim elements as long as the final result of the method produces "a useful, tangible, and concrete result." With respect to claims 1-14, the method produces stored representations of conjunctions of contexted disjunctions. These, representations are "useful" for solving nogood databases (see claim 1 preamble and at least paragraph [0010]). Claims 1-14 produce a "tangible" result for the same reasons discussed above with respect to claim 1-10. Finally, claims 1-14 produce a "concrete" result. According to the PTO guidelines, to produce a concrete result, the result must be repeatable or predictable. As discussed in detail in paragraphs [0019]-[0033], conjunctions of contexted disjunctions both repeatably and predictably are usable to solve nogood databases.

Thus, because the methods and systems of claims 1-14 produce "a useful, tangible, and concrete result," claims 1-14 are patentable under §101, in spite of the fact that they allegedly recite mathematical operations. Applicant respectfully requests withdrawal of the rejections.

The Office Action rejects claims 1-14 under 35 U.S.C. §102(b) over U.S. Patent No. 6,102,969 to Christianson et al. (hereinafter "Christianson"). Applicant respectfully traverses the rejection.

Christian fails to disclose any of "generating a representation comprising a plurality of contexted disjunctions," "conjoining all of the contexted disjunctions to form a conjunction of contexted disjunctions," or "storing the representation as the conjunction of contexted disjunctions," recited in claim 1 or "a storage device that stores a representation comprising a plurality of contexted disjunctions" or "a processor that conjoins all of the contexted disjunctions to form a conjunction of contexted disjunctions and replaces the representation with the conjunction of contexted disjunctions," recited in claim 11.

This rejection is based on the Office Action's assumption that the network information sources disclosed in Christianson are equivalent to Applicant's claimed "contexted disjunctions." However, as discussed and defined in detail in Applicant's specification,[1] contexted disjuctions are specific to constraint satisfaction problems and are a disjunction including propositional Boolean variables whose expression only holds true in a given context (paragraph [0020]). This type of propositional variable is simply not disclosed in Christianson. Rather, Christianson discloses listing information sources according to relevance, the information sources having no propositional Boolean variables whose expression only holds true in a given context. Thus, Christianson fails to disclose contexted disjuctions, as recited in claims 1-14.

Furthermore, the conjunction of this type of propositional variable is not disclosed in Christianson either (see, e.g., paragraph [0024]-[0028] for an example of conjoining contexed disjuctions). In particular, Christianson simply ranks network information sources according to relevance. Such a ranking fails to correspond to conjoining as defined in Applicats' specification. Thus, Christianson fails to disclose conjoining contexted disjuctions, as recited in claims 1-14.

Because Christianson fails to disclose both contexted disjuctions and conjoining contexted disjuctions, Christianson cannot reasonably be considered to disclose any of "generating a representation comprising a plurality of contexted disjunctions," "conjoining all of the contexted disjunctions to form a conjunction of contexted disjunctions," or "storing the representation as the conjunction of contexted disjunctions," recited in claim 1 or "a storage device that stores a representation comprising a plurality of contexted disjunctions" or "a

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[1]    As properly recognized by the Office Action, claims may be given their broadest reasonable interpretation "in light of the supporting disclosure." *In re Morris*, 127 F.3d 1048 (Fed. Cir. 1997) (emphasis added).

processor that conjoins all of the contexted disjunctions to form a conjunction of contexted disjunctions and replaces the representation with the conjunction of contexted disjunctions," recited in claim 11. Thus, claims 1 and 11 are patentable over Christianson.

Further, Applicant respectfully submits that claims 2-10 and 12-14 are patentable for at least the reasons the claims 1 and 11 are patentable, as well as for the additional features they recite. Applicant respectfully requests withdrawal of the rejection.

In view of at least the foregoing, Applicant respectfully submits that this application is in condition for allowance. Applicant earnestly solicits favorable reconsideration and prompt allowance of claims 1-16.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, Applicant invites the Examiner to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Jesse O. Collier
Registration No. 53,839

JAO:JOC/tea

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**OLIFF & BERRIDGE, PLC**
**P.O. Box 19928**
**Alexandria, Virginia 22320**
**Telephone: (703) 836-6400**

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